

Amendments to the Claims:

This listing of claims will replace all prior listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method, comprising:

receiving, by a policy control entity, a request by a gateway or communication control network element for an authorization for connection parameters, wherein at least one service data flow is used in a communication connection from a user equipment to the gateway or communication control network element and the communication connection aggregates multiple service flows;

deciding, in the policy control entity, on the connection parameters to be authorized for the communication connection and on service data flows that can be provided for the communication connection; and

sending a decision message from the policy control entity to the gateway or the communication control network element, wherein the decision message is processed to enforce a decision of the policy control entity in the communication connection, and wherein the decision message comprises an information portion from which, for each service data flow, it is derived that for at least one of service data flows the policy control entity is to be consulted for a further authorization to admit the service flow.

2. (Currently amended) The method according to claim 1, wherein ~~the decision message is processed to enforce a decision of the policy control entity in the communication connection;~~
and

the information portion is usable to determine service data flows of communication connection flows that can be admitted by the gateway or communication control network element without consulting the policy control entity, and service data flows of communication connection flows that are to be controlled by the policy control entity.

3. (Previously Presented) The method according to claim 2, further comprising:
receiving a request by the gateway or communication control network element for connection parameters for types of communication connection flows that are indicated to be controlled by the policy control entity;

deciding, in the policy control entity, on the connection parameters to be authorized for the types of communication flows in question based upon the request; and

sending a further decision message from the policy control entity to the gateway or communication control network element, wherein the further decision message comprises the authorization for the connection parameters of the types of communication connection flows in question.

4. (Previously Presented) The method according to claim 2, further comprising:
providing, for a flow of the types of communication connections that are indicated to be controlled by the gateway or communication control network element, provisioned connection parameters for the types of communication connection flows controlled by the gateway or communication control network element.

5. (Previously Presented) The method according to claim 1, further comprising:
connecting a mobile communication network with user equipment comprising the user equipment.

6. (Previously Presented) The method according to claim 1, wherein the gateway or communication control network element comprises a communication control or gateway network element of the communication network of a mobile communication network, wherein the communication control or gateway network element is configured to trigger a dynamic policy request.

7. (Previously Presented) The method according to claim 1, wherein the request comprises requesting the authorization from the policy control entity comprising a policy control network function that is configured to perform the deciding based on at least one of a user subscription profile and application service information.

8. (Previously Presented) The method according to claim 1, wherein the request comprises requesting the policy control entity being a separate network element or included in the gateway or communication control network element.

9. (Previously Presented) The method according to claim 1, wherein the request comprises requesting the authorization for the connection parameters comprising a quality of service level to be provided for the communication connection.

10. (Previously Presented) The method according to claim 1, wherein the deciding comprises deciding on the service data flows defined based on at least one of a service access point, a service packet classifier and aggregate level parameters pertaining to the communication connection based on the connection parameter request signaling.

11. (Previously Presented) The method according to claim 1, wherein the sending comprises sending the decision message or messages comprising charging information for the communication connection using at least one service data flow.

12. (Previously Presented) The method according to claim 1, wherein the deciding comprises deciding on the service data flows including at least one of real-time service data flows and non real-time service data flows.

13. (Previously Presented) The method according to claim 1, wherein the sending comprises sending, in the decision message, aggregate connection parameters to the gateway or communication control network element as a part of a set of parameters.

14. (Previously Presented) The method according to claim 1, wherein the request comprises requesting the authorization from the policy control entity, when session-based service data flows are authorized by the policy control entity, being configured to receive information about flows included in a session and information pertaining to a commencement and termination of sessions.

15. (Previously Presented) The method according to claim 2, wherein the request comprises using, when indicating the types of communication connection flows that are to be controlled by the policy control entity, at least one of an authorization token and a flow identification as binding information.

16. (Previously Presented) The method according to claim 1, further comprising:
locating the user equipment in different communication networks or in a same communication network as a second communication entity with which the communication connection is established.

17. (Previously Presented) The method according to claim 1, further comprising:
setting a default value for the connection parameters for other service data flows for which the policy control entity is not to be consulted for a further authorization to admit the service flow.

18. (Previously Presented) The method according to claim 17, wherein the setting comprises setting a default value for connection parameters per service data flow.

19. (Currently amended) A system, comprising:
a third network element via which a communication connection is initialized, and that is configured to send a connection parameter request signaling for at least one service data flow to be used in the communication connection from a first communication entity; and
a fourth network element to which the third network element requests an authorization for connection parameters, wherein the fourth network element is configured to decide on the connection parameters to be authorized for the communication connection and on service data flows that can be provided for the communication connection, wherein at least one service data flow is used in the communication connection and the communication connection aggregates multiple service flows;
wherein the fourth network element is further configured to generate and send a decision message to the third network element, wherein the decision message comprises an information

portion from which, for each service data flow, it is derived that for at least one of the service data flows the fourth network element is to be consulted for a further authorization to admit the service flow;

and wherein the third network element is configured to process the decision message to enforce the decision of the fourth network element in the communication connection.

20. (Currently Amended) The system according to claim 19, wherein the third network element is configured to

process the decision message comprising the information portion indicating, for each service data flow, whether or not the fourth network element controls a further authorization regarding at least one of the service data flows in the communication connection ~~and to enforce the decision of the fourth network element in the communication connection~~, and

determine, based on information portion, service data flows of communication connection flows that can be admitted by the third network element without consulting the fourth network element, and types of the communication connection flows that are to be controlled by the fourth network element.

21. (Previously Presented) The system according to claim 20, wherein the third network element is configured to request, when the third network element receives a flow of the types of communication connections that are indicated to be controlled by the fourth network element, the connection parameters for the types of communication connection flows from the fourth network element, and

wherein the fourth network element is configured to decide on the connection parameters to be authorized for the service data flow in question and is further configured to generate and send a further decision message to the third network element, wherein the further decision message comprises the authorization for the connection parameters of the types of communication connection flows in question.

22. (Previously Presented) The system according to claim 20, wherein the third network element is configured to admit, when the third network element receives a flow of the types of communication connections that are indicated to be controlled by the third network element, the flow by using provisioned connection parameters for the types of communication connection flows controlled by the third network element.

23-36. (Cancelled)

37. (Currently amended) An apparatus, comprising:
a processor configured to
receive from a third network element, via which a communication connection is initialized by a connection parameter request signaling for at least one service data flow to be used in the communication connection from a first communication entity, a request for an authorization for the connection parameters, wherein at least one service data flow is used in the communication connection and the communication connection aggregates multiple service flows,

decide on connection parameters to be authorized for the communication connection and on service data flows that can be provided for the communication connection, and

generate and initiate sending of a decision message to the third network element, wherein the decision message is processed to enforce a decision of the apparatus in the third network element, and wherein the decision message comprises an information portion from which, for each service data flow, it is derived that for at least one of service data flows the apparatus is to be consulted for a further authorization to admit the service flow.

38. (Previously Presented) The apparatus according to claim 37, wherein the processor is further configured to

receive a further request for an authorization of connection parameters for service data flows of the communication connection flows that are to be controlled by the apparatus,

decide on the connection parameters to be authorized for a service data flow in question, and

generate and initiate sending of a further decision message to the third network element, wherein the further decision message comprises the authorization for the connection parameters of the service data flow in question.

39. (Previously Presented) The apparatus according to claim 37, wherein the first communication entity comprises user equipment connected with a mobile communication network.

40. (Previously Presented) The apparatus according to claim 37, wherein the third network element comprises a communication control or gateway network element of the communication network of a mobile communication network, wherein the communication control or gateway network element is configured to trigger a dynamic policy request.

41. (Previously Presented) The apparatus according to claim 37, wherein the processor is further configured to generate and initiate sending of the decision message based on at least one of a user subscription profile and application service information.

42. (Previously Presented) The apparatus according to claim 37, wherein the apparatus is a separate network element or included in the third network element.

43. (Previously Presented) The apparatus according to claim 37, wherein the connection parameters comprise a quality of service level provided for at least one of the communication connection and aggregate level parameters pertaining to the communication connection based on the initialized connection parameter request signaling.

44. (Previously Presented) The apparatus according to claim 37, wherein the service data flows are defined based on a service access point or on a service packet classifier.

45. (Previously Presented) The apparatus according to claim 37, wherein the decision message or messages comprise charging information for the communication connection using at least one service data flow.

46. (Previously Presented) The apparatus according to claim 37, wherein the service data flows include at least one of real-time service data flows and non real-time service data flows.

47. (Previously Presented) The apparatus according to claim 37, wherein, in a decision message, the processor is configured to receive aggregate connection parameters as a part of a set of parameters.

48. (Previously Presented) The apparatus according to claim 38, wherein, when the processor receives a flow of the types of communication connections that are indicated to be controlled by the apparatus, the processor is configured to use at least one of an authorization token and a flow identification as binding information in the request from the apparatus.

49. (Previously Presented) The apparatus according to claim 37, wherein the first communication entity is located in a different communication network or in a same communication network as a second communication entity with which the communication connection is established.

50. (Previously Presented) The apparatus according to claim 37, wherein the processor is further configured to set a default value for the connection parameters for other service data flows for which the apparatus is not to be consulted for a further authorization to admit the service data flow.

51. (Previously Presented) The apparatus according to claim 50, wherein a default value for connection parameters is set per service data flow.

52. (Currently amended) An apparatus, comprising:
a processor configured to
receive, when a communication connection is initialized by a first communication entity, a connection parameter request signaling for at least one service data flow to be used in

the communication connection, wherein at least one service data flow is used in the communication connection and the communication connection aggregates multiple service flows,

request, from a fourth network element, an authorization for the connection parameters, wherein the fourth network element is configured to decide on connection parameters to be authorized for the communication connection and on service data flows that can be provided for the communication connection, and

receive from the fourth network element a decision message, wherein the decision message comprises an information portion from which, for each service data flow, it is derived that for at least one of service data flows the fourth network element is to be consulted for a further authorization to admit the service flow, and

process the decision message to enforce a decision of the fourth network element in the communication connection.

53. (Currently Amended) The apparatus according to claim 52, wherein the processor is further configured to

~~process the decision message to enforce a decision of the fourth network element in the communication connection, and~~

determine, based on the information portion, service data flows of the communication connection flows that can be admitted by the apparatus without consulting the fourth network element, and further service data flows of the communication connection flows that are to be controlled by the fourth network element.

54. (Previously Presented) The apparatus according to claim 53, wherein the processor is configured to

request, when the apparatus receives a flow of types of communication connections that are indicated to be controlled by the fourth network element, connection parameters for the further service data flows from the fourth network element, and

receive from the fourth network element a further decision message generated based on a decision by the fourth network element on connection parameters to be authorized for the service data flow in question, based upon a request from the processor, wherein the further decision

message comprises the authorization for the connection parameters of the service data flow in question.

55. (Previously Presented) The apparatus according to claim 53, wherein the processor is further configured to admit, when the apparatus receives a service data flow that is indicated to be controlled by the apparatus, the flow by using provisioned connection parameters for the service data flow.

56. (Previously Presented) The apparatus according to claim 52, wherein the processor is further configured to connect a mobile communication network with user equipment comprising the first communication entity.

57. (Previously Presented) The apparatus according to claim 52, wherein the apparatus comprises a communication control or gateway network element of the communication network, and wherein the communication control or gateway network element is configured to trigger a dynamic policy request.

58. (Previously Presented) The apparatus according to claim 52, wherein the fourth network element comprises a policy control network function to perform a decision based on at least one of a user subscription profile and application service information.

59. (Previously Presented) The apparatus according to claim 52, wherein the fourth network element is a separate network element or included in the communication control network element.

60. (Previously Presented) The apparatus according to claim 52, wherein the connection parameters comprise a quality of service level to be provided for at least one of the communication connection and aggregate level parameters pertaining to the communication connection based on the initialized connection parameter request signaling.

61. (Previously Presented) The apparatus according claim 52, wherein the service data flows are defined based on a service access point or on a service packet classifier.

62. (Previously Presented) The apparatus according to claim 52, wherein the decision message or messages comprise charging information for the communication connection using at least one service data flow.

63. (Previously Presented) The apparatus according to claim 52, wherein the service data flows include at least one of real-time service data flows and non real-time service data flows.

64. (Previously Presented) The apparatus according to claim 52, wherein, in a decision message, the processor is configured to initiate sending of aggregate connection parameters to the fourth network element from the apparatus as a part of a set of parameters.

65. (Previously Presented) The apparatus according to claim 52, wherein the processor, when session-based service data flows are authorized by the fourth network element, is configured to receive information about flows included in a session, as well as information pertaining to a commencement and termination of sessions.

66. (Previously Presented) The apparatus according to claim 52, wherein the first communication entity is located in a different communication network or in a same communication network as a second communication entity with which the communication connection is established.

67. (Currently amended) A computer program embodied on a computer-readable storage medium, the program configured to control a processor to perform a process, the process comprising:

receiving, by a fourth network element, a request by a third network element for an authorization for connection parameters, wherein at least one service type is used in a

communication connection from a first communication entity to the third network element and the communication connection aggregates multiple service flows;

deciding, in the fourth network element, on the connection parameters to be authorized for the communication connection and on service types that can be provided for the communication connection; and

sending a decision message from the fourth network element to the third network element, wherein the decision message is processed to enforce a decision of the fourth network element in the communication connection, and wherein the decision message comprises an information portion from which, for each service, it is derived that for a first type of service flows the fourth network element is to be consulted for a further authorization to admit the service flow.

68. (Currently Amended) A computer program embodied on a computer-readable storage medium, the program configured to control a processor to perform a process, the process comprising:

receiving, by a third network element, when a communication connection is initialized by a first communication entity, a connection parameter request signaling for at least one service data flow to be used in the communication connection, wherein at least one service data flow is used in the communication connection and the communication connection aggregates multiple service flows;

requesting, by the third network element from a fourth network element, an authorization for the connection parameters, wherein the fourth network element is configured to decide on connection parameters to be authorized for the communication connection and on service data flows that can be provided for the communication connection; and

receiving, by the third network element, a decision message from the fourth network element, wherein the decision message is processed to enforce a decision of the fourth network element in the communication connection, and wherein the decision message comprises an information portion from which, for each service data flow, it is derived that for at least one of service data flows the fourth network element is to be consulted for a further authorization to admit the service flow.

69. (Currently amended) A method, comprising:

receiving, by a third network element, when a communication connection is initialized by a first communication entity, a connection parameter request signaling for at least one service data flow to be used in the communication connection, wherein at least one service data flow is used in the communication connection and the communication connection aggregates multiple service flows;

requesting, by the third network element from a fourth network element, an authorization for the connection parameters, wherein the fourth network element is configured to decide on connection parameters to be authorized for the communication connection and on service data flows that can be provided for the communication connection; and

receiving, by the third network element, a decision message from the fourth network element, wherein the decision message comprises an information portion from which, for each service data flow, it is derived that for at least one of service data flows the fourth network element is to be consulted for a further authorization to admit the service flow; and

processing the decision message to enforce a decision of the fourth network element in the communication connection.

70. (Currently Amended) The method according to claim 69, further comprising:

~~processing the decision message to enforce a decision of the fourth network element in the communication connection; and~~

determining, based on the information portion, service data flows of the communication connection flows that can be admitted by the apparatus without consulting the fourth network element, and further service data flows of the communication connection flows that are to be controlled by the fourth network element.

71. (Previously Presented) The method according to claim 70, further comprising:

requesting, when a flow of types of communication connections is received that are indicated to be controlled by the fourth network element, connection parameters for the further service data flows from the fourth network element; and

receiving from the fourth network element a further decision message generated based on a decision by the fourth network element on connection parameters to be authorized for the

service data flow in question, based upon the requesting, wherein the further decision message comprises the authorization for the connection parameters of the service data flow in question.

72. (Previously Presented) The method according to claim 70, further comprising:
admitting, when a service data flow that is indicated to be controlled by the third network element is received, the flow by using provisioned connection parameters for the service data flow.

73. (Previously Presented) The method according to claim 69, further comprising:
connecting a mobile communication network with user equipment comprising the first communication entity.

74. (Previously Presented) The method according to claim 69, further comprising:
providing a communication control or gateway network element of the communication network as the third network element, wherein the communication control or gateway network element is configured to trigger a dynamic policy request.

75. (Previously Presented) The method according to claim 69, wherein the fourth network element comprises a policy control network function to perform a decision based on at least one of a user subscription profile and application service information.

76. (Previously Presented) The method according to claim 69, wherein the fourth network element is a separate network element or included in the communication control network element.

77. (Previously Presented) The method according to claim 69, wherein the connection parameters comprise a quality of service level to be provided for at least one of the communication connection and aggregate level parameters pertaining to the communication connection based on the initialized connection parameter request signaling.

78. (Previously Presented) The method according claim 69, further comprising:

defining the service data flows based on a service access point or on a service packet classifier.

79. (Previously Presented) The method according to claim 69, wherein the decision message or messages comprise charging information for the communication connection using at least one service data flow.

80. (Previously Presented) The method according to claim 69, wherein the service data flows include at least one of real-time service data flows and non real-time service data flows.

81. (Previously Presented) The method according to claim 69, further comprising:
sending, in a decision message from the third network element, aggregate connection parameters to the fourth network element as a part of a set of parameters.

82. (Previously Presented) The method according to claim 69, further comprising:
receiving, when session-based service data flows are authorized by the fourth network element, information about flows included in a session, as well as information pertaining to a commencement and termination of sessions.

83. (Previously Presented) The method according to claim 69, wherein the first communication entity is located in a different communication network or in a same communication network as a second communication entity with which the communication connection is established.

84. (Previously Presented) The method according to claim 1, wherein the decision message comprises an information portion from which it is derived that for other service data flows the policy control entity is not to be consulted for a further authorization to admit the service flow.

85. (Previously Presented) The apparatus according to claim 37, wherein the decision message comprises an information portion from which it is derived that for other service data flows the apparatus is not to be consulted for a further authorization to admit the service flow.

86. (Currently amended) An apparatus, comprising:

receiving means for receiving, by a fourth network element, a request by a third network element for an authorization for connection parameters, wherein at least one service data flow is used in a communication connection from a first communication entity to the third network element and the communication connection aggregates multiple service flows;

deciding means for deciding, in the fourth network element, on the connection parameters to be authorized for the communication connection and on service data flows that can be provided for the communication connection; and

sending means for sending a decision message from the fourth network element to the third network element, wherein the decision message is processed to enforce a decision of the fourth network element in the communication connection, and wherein the decision message comprises an information portion from which, for each service data flow, it is derived that for at least one of service data flows the fourth network element is to be consulted for a further authorization to admit the service flow.

87. (Currently amended) An apparatus, comprising:

receiving means for receiving, by a third network element, when a communication connection is initialized by a first communication entity, a connection parameter request signaling for at least one service data flow to be used in the communication connection, wherein at least one service data flow is used in the communication connection and the communication connection aggregates multiple service flows;

requesting means for requesting, by the third network element from a fourth network element, an authorization for the connection parameters, wherein the fourth network element is configured to decide on connection parameters to be authorized for the communication connection and on service data flows that can be provided for the communication connection; and

receiving means for receiving, by the third network element, a decision message from the fourth network element, wherein the decision message is processed to enforce a decision of the fourth network element in the communication connection, and wherein the decision message comprises an information portion from which, for each service data flow, it is derived that for at least one of service data flows the fourth network element is to be consulted for a further authorization to admit the service flow.

88. (Currently Amended) A communication control network element usable in a system for controlling connection parameters for a communication connection, the communication control network element comprising:

means for receiving, when a communication connection is initialized by a first communication entity, a connection parameter request signaling for at least one service type to be used in the communication connection,

means for requesting, from a fourth network element, an authorization for the connection parameters to be authorized for communication connection and on service type which can be provided for the communication connection, and

means for receiving from the fourth network element a decision message, wherein the decision message is processed to enforce a decision of the fourth network element in the communication connection, and wherein the decision message comprises an information portion indicating for each service, whether or not the fourth network element controls a further authorization regarding at least one of the service type in the communication connection.